

What Is Claimed Is:

1. A drive current supply circuit for supplying drive current to a laser diode used for reading data from and writing data on an optical disk, comprising:

5           a first current mirror circuit having two parallel lines, said laser diode being connected with one of the two parallel lines; and

10           a control circuit connected with the other of the two parallel lines, said control circuit controls the current flowing in this line in accordance with a potential of this line,

15           this potential comprising a steady DC component when reading data; and

20           this potential comprising a drive signal component added to said DC component when writing data.

25           2. The drive current supply circuit according to claim 1,

wherein said first current mirror circuit comprises first and second field-effect transistors with their gates connected in common,

25           wherein the channel of said first field-effect transistors is said one of said lines,

wherein the channel of said second field-effect transistors is said other of said lines.

30           3. The drive current supply circuit according to claim 1, further comprising a second current mirror

circuit having two parallel lines, one of said lines of  
said second current mirror circuit being connected with  
said laser diode, and wherein said control circuit  
controls the current flowing through the other of said  
lines of said second current mirror circuit in  
accordance with a potential of the other of said lines,

5           this potential comprising a steady DC component  
when reading data; and

10          this potential comprising a drive signal component  
added to said DC component when writing data.